AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) An oxidation sensor for an electrical circuit, comprising:

at least two conductors located on an insulating substrate;

a sensor trace located on the insulating substrate and located between the at least two conductors, wherein the sensor trace is configured to have a positive potential greater than a potential of the at least two conductors when a voltage is applied to the sensor trace; ~~and~~

an oxidizable electrical component associated with the sensor trace, wherein the sensor trace is configured to oxidize at a rate greater than the electrical component when the sensor trace and the electrical component are exposed to a same oxidizing environment; and

wherein the oxidation sensor is capped by a grounded roof layer.

2. (Previously Presented) The oxidation sensor as recited in Claim 1 wherein the sensor trace is configured to have a positive potential greater than a potential of the at least two conductors in the presence of an applied voltage.

3. (Previously Presented) The oxidation sensor as recited in Claim 1 wherein the sensor trace is located a distance from the at least two conductors of about 2 μm or less.

4. (Previously Presented) The oxidation sensor as recited in Claim 1 wherein the at least two conductors are grounded.

5. (Original) The oxidation sensor as recited in Claim 1 wherein the sensor trace comprises a conductive material selected from the group consisting of:

titanium,

copper,

tungsten,

aluminum, and

tantalum

6. (Original) The oxidation sensor as recited in Claim 1 wherein the sensor trace comprises silicon.

7. (Original) The oxidation sensor as recited in Claim 1 further including bonds pads connected to the sensor trace.

8. (Original) The oxidation sensor as recited in Claim 1 wherein the sensor trace has a serpentine configuration.

9. (Original) The oxidation sensor as recited in Claim 9 wherein the serpentine configuration includes a pattern of angles.

10. (Original) The oxidation sensor as recited in Claim 10 wherein the angles range from about 25 degrees to about 175 degrees.

11. (Previously Presented) The oxidation sensor as recited in Claim 1 wherein the sensor trace and the at least two conductors have a serpentine configuration.

Claim 12 (Canceled)

13. (Original) The oxidation sensor as recited in Claim 1 wherein the sensor trace is unpassivated.

14. (Original) The oxidation sensor as recited in Claim 1 wherein the oxidizing environment includes a relative humidity of greater than 50% and voltages of greater than 10 volts.

15. (Original) The oxidation sensor as recited in Claim 1 wherein the sensor trace has a width less than 2 microns.

16. (Currently Amended) A method of manufacturing an oxidation sensor for an electrical circuit, comprising:

forming at least two conductors on an insulating substrate; and

forming a sensor trace located on the insulating substrate and located between the at least two conductors, wherein the sensor trace is configured to have a positive potential greater than a potential of the at least two conductors when a voltage is applied to the sensor trace; ~~and~~

associating an oxidizable electrical component with the sensor trace, wherein the sensor trace is configured to oxidize at a rate greater than the electrical component when the sensor trace and the electrical component are exposed to a same oxidizing environment and

wherein the oxidation sensor is capped by a grounded roof layer.

Claim 17 (Canceled)

18. (Original) The method as recited in Claim 16 wherein forming the sensor trace includes forming the sensor trace so that the sensor trace is located at a distance from the at least two conductors of about 2 μm or less.

19. (Previously Presented) The method as recited in Claim 16 wherein forming the at least two conductors includes forming grounded conductors.

20. (Previously Presented) The method as recited in Claim 16 wherein forming the sensor trace includes forming the sensor trace so that the sensor trace comprises a conductive material selected from the group consisting of:

titanium,

copper,

tungsten,

aluminum, and

tantalum.

21. (Previously Presented) The method as recited in Claim 16 wherein forming the sensor trace includes forming the sensor trace so that the sensor trace comprises silicon.

22. (Previously Presented) The method as recited in Claim 16 wherein forming a sensor trace includes forming bonds pads connected to the sensor trace.

23. (Previously Presented) The method as recited in Claim 16 wherein forming the sensor trace includes forming the sensor trace with a serpentine configuration.

24. (Previously Presented) The method as recited in Claim 23 wherein forming the sensor trace with a serpentine configuration includes forming a pattern of angles.

25. (Previously Presented) The method as recited in Claim 24 wherein forming a pattern of angles includes forming a pattern of angles so that the angles range from about 25 degrees to about 175 degrees.

26. (Previously Presented) The method as recited in Claim 16 wherein forming the sensor trace and the at least two conductors include forming the sensor trace and the at least two conductors include forming them into a serpentine configuration.

Claim 27 (Canceled)

28. (Previously Presented) The method as recited in Claim 16 wherein forming the sensor trace includes forming an unpassivated sensor trace.

29. (Previously Presented) The method as recited in Claim 16 wherein exposing the sensor trace and the electrical component to an oxidizing environment includes a relative humidity of greater than 50% and voltages of greater than 10 volts.

30. (Previously Presented) The method as recited in Claim 16 wherein forming the sensor trace includes forming the sensor trace such that a width of the sensor trace is less than 2 microns.

31. (Currently Amended) A micro-electromechanical device, comprising:

an actuator;

an actuation mechanism;

an oxidizable electrical component; and

an oxidation sensor, comprising:

at least two conductors located on an insulating substrate; ~~and~~

a sensor trace located on the insulating substrate and located between the at least two conductors, wherein the sensor trace is configured to have a positive potential greater than a potential of the at least two conductors when a voltage is applied to the sensor trace and configured to oxidize at a rate greater than the electrical component trace when the sensor trace and the electrical component are exposed to a same oxidizing environment and

wherein the oxidation sensor is capped by a grounded roof layer.

Claim 32 (Canceled)

33. (Previously Presented) The oxidation sensor as recited in Claim 31 wherein the sensor trace is located a distance from the at least two conductors of about 2 μm or less.

34. (Previously Presented) The oxidation sensor as recited in Claim 31 wherein the at least two conductors are grounded.

35. (Previously Presented) The oxidation sensor as recited in Claim 31 wherein the sensor trace comprises a conductive material selected from the group consisting of:

titanium,

copper,

tungsten,

aluminum, and

tantalum.

36. (Previously Presented) The oxidation sensor as recited in Claim 31 wherein the sensor trace comprises silicon.

37. (Previously Presented) The oxidation sensor as recited in Claim 31 further including bonds pads connected to the sensor trace.

38. (Previously Presented) The oxidation sensor as recited in Claim 31 wherein the sensor trace has a serpentine configuration.

39. (Previously Presented) The oxidation sensor as recited in Claim 38 wherein the serpentine configuration includes a pattern of angles.

40. (Previously Presented) The oxidation sensor as recited in Claim 39 wherein the angles range from about 25 degrees to about 175 degrees.

41. (Previously Presented) The oxidation sensor as recited in Claim 31 wherein the sensor trace and the at least two conductors have a serpentine configuration.

Claim 42 (Canceled)

43. (Previously Presented) The oxidation sensor as recited in Claim 31 wherein the electrical component and the sensor trace are unpassivated.

44. (Previously Presented) The oxidation sensor as recited in Claim 31 wherein the oxidizing environment includes a relative humidity of greater than 50% and voltages of greater than 10 volts.

45. (Previously Presented) The oxidation sensor as recited in Claim 31 wherein the sensor trace has a width less than 2 microns.